

**ABSTRACT**

The present invention is directed to touch sensors with arrays of switches (e.g., diodes or transistors) that can be used to selectively apply voltage gradients across a resistive touch regions of the touch sensor substrate. Touches on the 5 touch sensor can then be sensed by measuring the voltage at the touch location on the resistive touch region. The switch arrays take the form of strips of switches that can be cut from a prefabricated reel or a sheet and applied to the touchscreen substrate.